

VISION 2020 + 20 Update

Issue Paper on Health:

What's Health Got to Do with Growth Management, Economic Development and Transportation?

Puget Sound Regional Council

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WHAT'S HEALTH GOT TO DO WITH GROWTH MANAGEMENT, ECONOMIC DEVELOPMENT AND TRANSPORTATION?

When the health statistics say 1 in 1000 or 1 in a million, that's the other person; when it's 1 in 3 adult Americans have high blood pressure¹ or 2 out of 3 adults in America are overweight,² that's you and me. Add to that the rising cost of health care that impacts our personal health, as well as the cost of doing business for employers. And finally, the health of our children is threatened by obesity, respiratory problems and other chronic diseases.

Public health is directly linked with our communities and transportation – that is, to how we live and how we get around. As we plan for our communities and transportation, input from public health should be factored into our decisions and actions.

Regional Council staff worked with representatives from local governments and public health agencies to develop this issue paper. The first part of the paper is designed to introduce the reader to relationship of health to land use and transportation planning. Health issues related to environmental quality, safety, and physical activity are presented. Next, relevant research – conducted both nationally and locally – is briefly summarized that describes linkages the scientific community is beginning to make between community design and well-being. Finally, a set of considerations is laid out that addresses ways in which health issues could be addressed in the update of VISION 2020. These considerations are arranged in three groups: (1) opportunities for addressing health in *updated multicounty policies*, (2) *preliminary actions to implement* health-related programs and strategies, and (3) initial guidance for developing *measurable objectives* for monitoring relevant health issues.

Local and state governments have had a long-standing commitment to heighten public awareness of health issues. The State of Washington has more than 30 local public health agencies – including ones in each of the four counties in the central Puget Sound region. A primary concern of public health is keeping entire communities healthy, safe and livable. These agencies work to prevent the spread of disease, to protect people from unsafe water and air, from hazardous waste, and to help people live healthy lives.³ In recent years, our county public health agencies, local land use planners and transportation staff have begun to focus increased attention on our built environment and the way we travel, and how that affects our health and well-being.

¹ Larry E. Fields (August 2004). *Hypertension* in Journal of the American Heart Association.

² Brian Vastag (March 2004). *Obesity Is Now on Everyone's Plate* in Journal of the American Medical Association. Volume 291: pages 1186-1188.

³ Excerpted from statement by the *Washington State Association of Local Public Health Officials* – an affiliate of the *Washington State Association of Counties*. (See "about public health" from Snohomish Health District website at www.snohd.org/button_pages2/aboutph.htm.)

Overview

The design and location of communities and transportation systems affect levels of physical activity and public health. For example, a higher dependence on driving reduces opportunities for physical activity, as well as increasing air pollutants and subjecting individuals to the safety risks of automobile travel.

Physical inactivity has become a growing health problem in the United States, contributing to obesity, chronic disease, osteoporosis, depression, and premature death. Although much recent attention has been given to the notion of linking health to land use and transportation, this is in fact not a new concept. Even in the late 1800s, planning was advanced as a tool for addressing the unhealthy conditions of substandard housing. By the 1920s, states, counties and municipalities were embracing the benefits of planning and zoning and connections to public health. Orderly development and comprehensive planning were viewed as advancing *health, safety and general welfare* by separating factories from residences. Over time, the dominant planning model continued to separate different land uses – often with a very narrow understanding of any health or safety benefits. Housing, employment and commercial activity became more and more separated, with incomplete street grids and missing sidewalks.

In the 1970s health concerns related to exposure to polluted water, dirty air and excessive noise led to the establishment of new environmental standards at federal, state and local levels and major clean-up efforts.⁴ As we enter a new century, researchers are examining the complex relationships between development patterns, the ways we travel, and how these can affect our well-being. For instance, communities that are (1) denser, (2) have a compatible mix of land uses, (3) are connected by pedestrian and bicycle facilities and (4) have good access to transit, rely less on driving, and are more conducive to physical activity. Dense urban environments, when properly designed and built, can result in reducing per capita environmental impacts.

Our built environment affects the natural environment. Uncontrolled and expansive development patterns contribute not only to habitat loss, but also to declining water resources and quality. For example, runoff from impervious surfaces in urban and suburban development has been tied to a rise in chemicals and pollutants in nearby streams and waterways.⁵

⁴ Federal law requires that long-range transportation plans developed by federally-recognized metropolitan planning organizations (MPOs) conform with the federal Clean Air Act and its amendments, and with applicable state implementation plans for regional air quality. The Puget Sound Regional Council is the MPO for the four-county central Puget Sound region and its metropolitan transportation plan, *Destination 2030*, demonstrated conformity with federal and state clean air provisions at the time of its adoption in 2001. See *Destination 2030* (May 2001). Puget Sound Regional Council. page 5.

⁵ Especially problematic are *polycyclic aromatic hydrocarbons* (PAHs). Some PAHs come from the incomplete burning of organic fuels or substances, such as coal, oil and gas, or garbage. Others are manufactured and are byproducts of crude oil, plastics or pesticides. See, for example, Allen Dearry

Our built environment - and the way we travel - has safety implications. The greater travel distances associated with a more dispersed, lower density development pattern results in the need for more driving to access jobs, schools, shopping, and entertainment. It is a simple matter of fact that more driving unfortunately results in more vehicle-related accidents,⁶ with the resultant injuries and fatalities – totaling more than 42,000 annually in the United States.⁷ The United States has one of the highest per capita fatality rates of developed countries.⁸

Our built environment also affects our physical and mental well-being. A growing body of research has begun to document correlations between dispersed development patterns and health. Transportation research is also expanding to look not only at conventional health-related issues, such as vehicle accident risks and pollution emissions, but also at impacts resulting from less physical activity. A great deal of attention has recently been given to studies linking the built environment and travel behavior to occurrences of obesity and associated illnesses. Allen Dearry, Associate Director of the National Institutes for Health, notes that:

The built environment influences weight management by affecting both food intake and energy expenditure. Communities characterized by less-dense development are associated with more vehicle travel and less walking and biking than are more densely developed communities.⁹

The central Puget Sound area is fortunate to be one of first urban regions in the United States where detailed research examining the linkage between health and the built environment has been conducted. Through a grant from the Federal Transit Administration, King County, along with the cities of Kent and Redmond and other partners – including the Puget Sound Regional Council, engaged in a two-year study of the relationship of *land use, transportation, air quality and health* (or LUTAQH). The summary of this study states that:

low density separated land uses and disconnected street networks are associated with: (1) increased automobile use, per capita air pollution, greenhouse gas emissions, and energy consumption; (2) reduced transit

(2004). *Impacts of Our Built Environment on Public Health* in Environmental Health Perspectives, Volume 112, Number 11 (August 2004). Page A 600.

⁶ Dearry (2004), *ibid*.

⁷ Source: National Highway Traffic Safety Administration. The fatality count in Washington State in 2003 was 600 deaths. See website at: www.nhtsa.dot.gov/people/Crash/crashstatistics/. Note: Vehicle crashes are the leading cause of death among Americans under the 37 years of age. (See article by Todd Litman (2002), *The Costs of Automobile Dependency and the Benefits of Balanced Transportation*, at www.vtpi.org/autodep.pdf.)

⁸ Todd Litman (2004). If Health Matters/Integrating Public Health Objectives in Transportation Planning. Victoria Transport Policy Institute. See also T. Litman (2003). *Integrating Public Health Objectives in Transportation Decision-Making* in *American Journal of Health Promotion*, Volume 18, Number 1 (September/October 2003). Available at www.healthpromotionjournal.com. See also www.vtpi.org.

⁹ Dearry (2004), *ibid*.

ridership, walking and physical activity; and (3) increased obesity and likelihood of cardiovascular disease, type II diabetes, and colorectal cancer.¹⁰

A similar study in Atlanta, called SMARTRAQ, made national news with its findings that link community design, time spent driving, and distances people walk, with obesity.¹¹ When these studies are coupled with other research that addresses the relationship between the built environment and transportation facilities with increased injuries to pedestrians (as well as bicyclists) it speaks to the need to examine how overall development patterns, as well as the design of transportation facilities, can affect our health and safety.¹²

What Did We Hear During Scoping?

In an effort to solicit a broad range of input and opinion on what the update to VISION 2020 should address, the Regional Council conducted an extensive scoping process from October 2003 through March 2004. More than 2000 individual comments were received, touching on two-dozen issues. There were a number of comments related to health and land use. For example, some respondents suggested that the update incorporate the concept of "active living," which involves planning around the notion of increasing physical activity to promote general health and safety. From some sectors of the health community, active living was advanced as a possible organizing principle for addressing the interface of residential, commercial and employment uses,¹³ and for addressing opportunities to increase biking, transit and walking to destinations and lessen dependence on heavily polluting forms of energy – especially fuels that dirty the air. At its July 8, 2004 meeting, the Growth Management Policy Board provided direction that health, and its relationship to land use and transportation, should be integrated into appropriate portions of the update.

What is the Research Saying?

As noted above, there is a growing body of research that links transportation and land use to public health outcomes, especially obesity and ailments related to inactivity. One study of counties across the United States revealed that individuals living in more sprawling, lower-density counties tend to walk less, suffer from being overweight, and

¹⁰ King County (2004). *Executive Summary in A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH*. Prepared by Lawrence Frank and Co., Inc.

¹¹ Georgia Institute of Technology and Georgia Tech Research Institute (2004). *SMARTRAQ*. See website at www.smartraq.net/

¹² PlannersWeb (2002). *Sprawl Guide*. See website at www.plannersweb.com/sprawl/prob_health.html

¹³ There are economic ramifications as well. In Michigan, often cited as having one of the nation's highest percentages of obesity, being overweight costs residents \$3 billion a year, threatening personal well-being, business productivity and the economy. A recent study shows that poor health is undercutting Michigan's ability to compete for jobs. At a recent International Monetary Fund Economic Forum, it was reported that healthier individuals do better economically and countries with healthier populations have higher rates of economic growth. Creating more active, healthy communities can also contribute to economic success. Kozlowski, Kim (2004). *Michigan's poor health costs jobs* in *The Detroit News* (February 27, 2004).

have a higher likelihood of hypertension.¹⁴ Another study found lower levels of obesity and higher levels of physical activity in more compact, walkable communities.¹⁵

Dr. Lawrence Frank (University of British Columbia, Vancouver), lead researcher for King County's LUTAQH study, has observed that "(l)ow density, disconnected, single use development patterns" have led to "increased levels of harmful air pollution" due to vehicle emissions, as well as to reduced physical activity because of "increased distances between destinations."¹⁶

The LUTAQH study was the result of a stakeholder-driven process that included an advisory committee of medical professionals, urban designers, environmentalists, banking and financing professionals, planners, transportation experts, and academicians. Data was collected and analyzed related to travel, physical activity and health. A major finding revealed the importance of mixed-use development. According to the study,

While density itself is needed to sustain commercial use and to make transit viable, providing retail destinations and activities near to where we live and where we work is critical. Where we live, the uses most strongly associated with the choice to walk are the numbers of neighborhood retail uses, restaurants and taverns, nearby employment destinations, parks, grocery stores and civic uses.¹⁷

In addition to the findings related to physical activity and health, the LUTAQH study revealed that "increasing residential density, intersection density, and land use mix at places of residence and employment was associated with significant reductions in per capita generation of both NOx and VOCs."¹⁸ Mixed land use in the vicinity of the home influenced emissions the most. The production of CO2 also declines with "increases in net residential density, improved street connectivity, and the number of retail uses near the home."¹⁹ This is further supported by the United States Bureau of Transportation Statistics survey of travel and automobile ownership in all U.S. metropolitan areas, which shows that increasing household densities directly correlates to fewer automobiles owned per household.²⁰

¹⁴ Ewing, et al. (2003). *Relationship between urban sprawl and physical activity, obesity and morbidity* in American Journal of Health Promotion. (18:47-57).

¹⁵ Salens, et al. (2003). *Neighborhood-based differences in physical activity/ an environment scale evaluation* in American Journal of Public Health. (93: 1552-1558)

¹⁶ King County (2004). A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH. Prepared by Lawrence Frank and Co., Inc.

¹⁷ King County (2004). A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH. Prepared by Lawrence Frank and Co., Inc.

¹⁸ NOx refers to *nitrogen oxide*; VOC refers to *volatile organic compounds*. King County (2004). A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH. Prepared by Lawrence Frank and Co., Inc.

¹⁹ CO2 refers to *carbon dioxide*. King County (2004). A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH. Prepared by Lawrence Frank and Co., Inc.

²⁰ United States Department of Transportation, Federal Highway Administration (1995). National Personal Transportation Survey.

In 1996 the U.S. Surgeon General issued a report titled *Physical Activity and Health*. It voiced the opinion that significant health benefits can be obtained through moderate activity, citing walking and bicycling as two types of physical activity that are the easiest to adopt and adhere to over the long term. Yet a variety of barriers inhibit walking and bicycling, some subjective (time and lack of motivation) while objective ones include safety issues, missing or poorly maintained infrastructure and other negative features of the built environment.²¹

In the 1999 Puget Sound Regional Council Household Survey, 60 percent of the respondents disagreed with the statement, “the region and/or my community is as pedestrian and bicycle–friendly as it should be.” When asked if they agreed with the statement, “*we should have more walkways, bike lanes, trails and amenities*,” twice as many people agreed than disagreed. In 2003, U.S. Department of Transportation released a major survey on attitudes and behaviors related to biking and walking. Respondents were asked to recommend changes to their communities for either bicycling or walking and most persons suggested changes in bicycle and pedestrian facilities. For those recommending changes, 73 percent wanted new bicycle facilities, such as trails, bicycle lanes and traffic signals, and 74 percent wanted pedestrian facilities including sidewalks, lighting and crosswalks. In the fall of 2003, as part of the public scoping process for the VISION 2020 update, the Regional Council directed a survey of citizens across the central Puget Sound region to gauge attitudes and opinions about quality of life, and an indication of the region’s priorities. A total of 66 percent prefer a transportation system that supports many modes of travel.

The public health, land use and transportation connection is a growing interest that has also drawn the attention of national organizations such as the U.S. Centers for Disease Control and Prevention, the National Institutes of Health, and the Robert Wood Johnson Foundation. The Foundation, a national leader in the fight against tobacco and smoking, has identified promoting healthy communities and lifestyles as one of its main goals.²² Also, locally, the public health departments in the central Puget Sound region are exploring ways to become involved in actions/decisions on development and transportation.

In 2003, the Washington State Department of Health launched a concerted effort to promote environmental and policy changes that encourage healthy eating and physical activity, which are detailed in a document titled the *Washington State Nutrition and Physical Activity Plan*. Among the objectives in the Plan is a commitment to increase more active living in communities by (1) utilizing urban planning approaches, including zoning and land use provisions, that promote physical activity, (2) incorporating

²¹ Surgeon General’s Report on Physical Activity and Health (1996). See website at: www.cdc.gov/nccdphp/sgr/sgr.htm.

²² In 2003, the Robert Wood Johnson Foundation issued 927 grants for health communities programs, totaling more than \$300 million.

transportation policy and infrastructure changes to promote transit use and nonmotorized travel, and (3) enhancing safety for walking and bicycling.²³

Health and the VISION 2020 Update: Opportunities and Challenges

There are a number of policies in the current VISION 2020 plan that already advance development patterns or travel choices that would support more active living – although that is more coincidental than intentional, since health was not explicitly a consideration when the policies were adopted in 1995. Among the provisions in VISION 2020 related to health are policies that promote: (1) the development of centers and compact communities, (2) transportation demand management and efforts to increase alternatives to driving alone – especially for walking, biking and transit use – and (3) mixed land use adjacent to transit stations. Moreover, public health itself did receive some attention in the 1995 VISION 2020 document. For example, Multicounty Planning Policy RC-2.6 states:

Give high priority to protecting and enhancing the natural environment and public health and safety when providing services and facilities.

Somewhat related, Policy RT-8.13 seeks to reduce automobile dependency with growth focused in centers.²⁴

Destination 2030, the region's long-range transportation plan, includes provisions that support increased transit use and improved nonmotorized facilities for pedestrians and bicyclists. The strategy calls for the creation of a regionally integrated network of nonmotorized facilities linking bicycle and pedestrian infrastructure within urban places, and connecting these facilities to regional transit services. To support the development of walkable, transit-oriented centers, *Destination 2030* established ten physical design guidelines.²⁵ These guidelines advance many of the concepts advocated for creating healthier, more active, communities.

²³ Washington State Department of Health (2003). *Washington State Nutrition and Physical Activity Plan*. The entire state plan and its executive summary are on-line at: www.doh.wa.gov/cfh/NutritionPA/wa_nutrition_pa_plan.htm

²⁴ Not outright addressing health, but the location of health services, Policy RC-2.8 states:
Integrate land use and transportation planning to encourage health and human services facilities to locate near transit and other services (such as day care, retail and legal) and to promote service delivery at affordable costs.

²⁵ The physical design guidelines in *Destination 2030*: (1) encourage a mix of complementary land uses, particularly uses that generate pedestrian activity and transit ridership, (2) encourage compact growth by addressing planned density, (3) link neighborhoods, connect streets, sidewalks and trails, (4) integrate activity areas with surrounding neighborhoods, (5) locate public and semipublic uses near high capacity transit stations in designated urban centers and activity centers, (6) design for pedestrians and bicyclists, (7) provide usable open spaces for the public, (8) manage the supply of parking, (9) promote the benefits of on-street parking, and (10) reduce and mitigate the effects of parking. See *Destination 2030* (adopted May 2001), page 37.

Priority investments included in *Destination 2030* for transportation projects and programs advance completion of the nonmotorized system by filling gaps in the existing network, creating connections to, and improved circulation within, urban centers and high capacity station areas, and developing intermodal connections. In 2002 the Regional Council's Executive Board approved the *Regional Bicycle and Pedestrian Implementation Strategy*, which provides additional and more detailed direction related to nonmotorized travel.

On September 30, 2004, the National Academy of Sciences released an assessment on childhood obesity. Among its recommendations, the Academy encouraged incorporating active living concepts into local planning and zoning:

Community organizations and state and local governments can make a difference by implementing programs that promote nutrition and regular physical activity and by supporting the establishment or revision of zoning ordinances and comprehensive plans to include or enhance sidewalks, bike paths, parks and playgrounds, and other recreational facilities.²⁶

Here in our region, the recently completed LUTAQH study states a need for establishing "development regulations and transportation programming criteria that demonstrate measurable and traceable support for transit and active forms of transportation."²⁷ To that end, it is recommended that the update of VISION 2020 advance strategies and programs to maximize public health benefits – as well as to improve environmental quality and accessibility.

Preliminary Considerations for the VISION 2020 Update

Preliminary considerations for how to integrate health factors in the VISION 2020 update are arranged below under three headings: (1) guidance for addressing health issues in updated multicounty policies, (2) preliminary implementation actions and strategies related to health and active living, and (3) initial guidance for measurable objectives to monitor health considerations related to land use and transportation.²⁸

Guidance for Addressing Health Issues in Updated Multicounty Policies

The considerations discussed in this section describe preliminary policy issues that could be addressed in the revised multicounty planning policies that are to be incorporated into an updated VISION 2020 strategy. In some instances, these policy

²⁶ National Academy of Sciences (2004). See website at: www.nationalacademies.org/topnews/.

²⁷ King County (2004). A Study of Land Use, Transportation, Air Quality and Health in King County, WA/LUTAQH. Prepared by Lawrence Frank and Co., Inc.

²⁸ Health-related issues and considerations will also be addressed in other issue papers in this series. For example, issues related to water quality, air pollution and soils contamination will be addressed in an environmental issue paper to be developed in early 2005. Issues related to transportation safety and nonmotorized travel will also receive attention in a transportation issue paper, also scheduled for early 2005. Issues related to mobility and accessibility needs of various sectors of the population, including the young, elderly, and transit-dependent, will be discussed in a demographics report and paper scheduled for Spring 2005.

issues are already detailed and provide specifics on whom the policy would affect and what the expectations would be. In other instances, the issues are more conceptual at this point and should they be advanced for further consideration in the update process, additional detail would need to be developed.

- A-1 Identify environmental public health as a major benefit for the urban growth and transportation provisions in the revised multicounty policies. Environmental public health should be a theme of the policies as a way to develop and maintain communities that are healthy, safe and livable.

Discussion: Work with county level health agencies and other groups to identify appropriate regional provisions and strategies addressing land use, transportation, and the environment where health considerations make a difference. (Note: A rationale based on improved air quality already exists in the current VISION 2020 policies and in Destination 2030, the region's long-range transportation strategy.)

- A-2 Jurisdictions are encouraged to implement programs and strategies that not only to protect water, air and soil at minimum federal or state standards, but enhance water, air and soil quality to ensure that communities are healthy, safe and attractive places in which to live and work.

Discussion: There can often be significant health benefits for going beyond minimum standards to improve well-being and quality of life.

- A-3 Multicounty policies addressing nonmotorized travel should be revised to advance the provisions from the *Bicycle/Pedestrian Implementation Strategy* (February 2003) – particularly those provisions that address improved walking and bicycling environments in urban areas – as well as strategic actions to increase pedestrian, transit, and bicycle travel. Walking and bicycling should be advanced both for their health benefits, as well as alternatives to driving alone. Treat nonmotorized travel as a functional transportation use rather than a recreational use.²⁹

- A-4 The transportation provisions in the VISION 2020 update should establish goals for increasing bicycle and pedestrian travel.

Discussion: One of the options to be considered in developing the update should be establishing a mode split of 15 percent for non-single occupant vehicle travel – which would include nonmotorized travel, as well as transit and ridesharing – for the year 2040.

²⁹ The existing multicounty planning policies include provisions that address a transportation planning concept known as "transportation demand management" or TDM. These provisions are designed to promote options to driving alone – both in peak and non-peak travel periods during the day. The Growth Management Act requires all local comprehensive plans to include TDM programs and strategies. Demand management and other transportation issues will be addressed in more detail in a subsequent issue paper to be developed as part of this series.

- A-5 Local transportation elements shall include pedestrian, bicycle and transit plans. The provisions in these local plans should be consistent with the provisions of the region's *Bicycle/Pedestrian Implementation Strategy*. During the Regional Council's certification process, these elements will be reviewed to ensure that the *Bicycle/Pedestrian Implementation Strategy* is addressed. The Regional Council will develop guidance identifying specific factors and criteria related to the *Implementation Strategy* that would need to be addressed in local pedestrian, bicycle and transit plans. Such plans should address both planning for new development and retrofitting older, established areas. (Jurisdictions should have such plans in place to compete for federal transportation grants, especially for monies earmarked for bicycle and pedestrian facilities.)

Discussion: The region's 2003 Bicycle/Pedestrian Implementation Strategy provides guidance for incorporating nonmotorized provisions into local and regional planning. This proposal would make key provisions in the Strategy more directive for local and regional transportation efforts.

- A-6 Multicounty policies addressing safety improvements for transportation should place an emphasis on pedestrian and bicycle safety, in addition to the current focus on driver safety. Safer routes and streets for pedestrians and bicyclists also result in safer streets for transit and motorists.

Discussion: the World Report on Road Traffic and Injury Prevention states:

The perception that road traffic injury is the price to be paid for achieving mobility and economic development needs to be replaced by a more holistic idea that emphasizes prevention through action at all levels of the road traffic system.³⁰

- A-7 There should be a multicounty policy directing transit agencies and local governments to work together to make pedestrian and bicycle investments coincident with improved transit service.
- A-8 Provisions addressing health and well-being should be incorporated into local comprehensive plans in the four-county region. As an incentive to encourage the development of health provisions in local plans, a "health" criterion should be introduced into regionally-managed transportation funding decision-making and/or regional prioritization processes for transportation projects.

Discussion: The regional transportation improvement program (TIP) process currently takes into account air-quality impacts and the development of urban centers. However, missing are any criteria for the consequences of transportation infrastructure on physical activity and health. While regionally-managed transportation funds should continue to be directed to projects and

³⁰ The Fundamentals (2004) in World Report on Road Traffic Injury Prevention: Summary.

programs that best advance the primary growth planning objectives for centers, jurisdictions having a health component in their plans should receive priority consideration when competing for transportation funds. Similarly, transportation projects that can demonstrate specific health benefits should be recognized in any process established regionally to prioritize such projects.

- A-9 There should be a multicounty policy that advocates improved access to health facilities for all sectors of the community.

Discussion: There is already a general provision in the current VISION 2020 strategy that addresses access to health facilities, particularly in minority and underserved neighborhoods. Local jurisdictions should work with partner organizations, such as the Washington Health Foundation and associations of health providers, to ensure that all residents of the region can access hospitals, clinics, and necessary health care.

Preliminary Implementation Actions & Strategies Related to Health & Active Living

This section includes possible programs and action that could be advanced through the VISION 2020 update process to help implement any health-related policies and provisions incorporated into a revised regional strategy.

Note: These potential actions and strategies are only briefly described at this point. Should they be advanced for further consideration in the update process, additional detail would need to be developed. The additional information would discuss responsible parties or agencies, program specifics, budgetary considerations, and schedule.

- B-1 Develop model provisions for addressing health in local comprehensive planning. This work could include toolkits, a compendium of best practices, a prototype health element, and/or guidance for revising zoning and development regulations. Work with health agencies and other partners to develop these provisions. Identify strategies for linking health with land use actions through the use of regulations, standards and guidelines (maybe through a “model” ordinance process.) Provisions should also be developed to promote pedestrian and bicycle safety. (Such safety issues could include: traffic calming, better education and testing regarding pedestrian presence along transportation facilities.)
- B-2 Encourage local jurisdictions to fund pedestrian and nonmotorized improvements through various financing strategies. For example, jurisdictions should consider an “active transportation” bicycle and pedestrian improvement levy. Similar to the way in which library and park improvements are funded, levies can be developed to finance sidewalks, bikeways, and other facilities that emphasize environmental, mobility and public health benefits of active transportation. Other approaches

could include establishing local improvement districts (LIDs) to cover portions of the costs for sidewalk, bikeway and trail construction.

- B-3 Develop a program for assessing sidewalk connectivity throughout the urbanized portions of the four-county region. Such an assessment should first consider designated regional centers. (Additional considerations should include transit service, school access, other business districts, and higher density residential areas.)

Discussion: This assessment would consider roadways with and without curbs and sidewalks, as well as other types of walkway connections. (Note: This proposal does not yet identify which agency would provide primary oversight for this program, or the resources for carrying it out.) Such a program could be phased over time, beginning with an assessment of facilities in designated regional growth centers, and then expanding to other areas within the urban growth area.

- B-4 Work with local governments, as well as transportation and transit agencies, to establish level-of-service or other performance criteria for all modes of transportation, not just roadways.

Discussion: This proposal does not yet identify which agency would provide primary oversight for establishing such standards or what the process and schedule would be.

- B-5 To support more strategic investments in certain types of transit infrastructure and service, work with transit agencies to assess capital improvement needs in communities where land-use policies and decisions are supportive of enhancing walking and bicycling, including places committed to:
- Increasing residential and employment density
 - Improving street connectivity

- B-6 Use the Regional Council as a venue for addressing education on the health-land use-transportation linkage to elected officials, local government staff, developers and the general public. Regularly run articles on this relationship in the Regional View and work with local governments and health agencies to sponsor appropriate educational events, such as workshops, symposia, and training sessions.

- B-7 Add a public health sector representative to the Regional Council's Transportation Policy Board.

- B-8 Continue to support research in building further information on the relationship between the built environment, transportation and public health.

- B-9 Advocate that health considerations be incorporated into SEPA/EIS review within the four-county region.

Discussion: Health impact assessments (HIAs) are tools now used both internationally and in a number of states here in the U.S to calculate health implications in a more methodical manner.

Initial Guidance for Measurable Objectives to Monitor Health Considerations Related to Land Use and Transportation

This section identifies ways in which measurable objectives could be developed to track progress – or lack thereof – in achieving the goals of any health-related policies and provisions incorporated into an updated VISION 2020 strategy.

Note: These measurable objectives are only briefly described at this point. Should they be advanced for further consideration in the update process, additional detail would need to be developed. The additional information would discuss lead agencies, specifics on monitoring, data development and acquisition, resources, and schedule.

C-1 Monitoring Health and Active Living

Work with health agencies and the academic community in the four-county region and with local jurisdictions to identify measures for assessing environmental and public health related to:

- Land use, including soil contamination, noxious uses, etc.
- Water quality
- Air quality
- Walkability and bikability

C-2 Work with partner agencies, including the Washington State Department of Transportation/Urban Planning Office and the University of Washington, to develop measures for assessing the walkability and bikability of urban environments. Collect “use” data for nonmotorized trip-making, similar to the information we collect for vehicle traffic and transit ridership. Routinely assess sidewalks and pathways in designated regional growth centers.